

REMARKS

The purpose of the foregoing amendment is to reduce the issues for appeal by cancelling claims that stand rejected under 35 U.S.C 112 first paragraph.

By this amendment, applicants do not, in any way, waive their rights to pursue a continuing application directed to the claimed subject matter, the cancellation of the claims is nearly to advanced prosecution of this application by way of appeal.

Reconsideration of the previous rejection of claims 1, 2, 4, 6, 7, and 16-17 over Hansson in view of Arledter or Mott and the rejection of claims 8-9 over these references in further view of Schulz is respectfully requested.

The present invention, as defined by claims 1, 2, 4, 6-9, and 16-17, is to the process for manufacturing of a decorative laminate comprising various steps.

One of the steps is providing a base layer, and printing a decorative layer comprising a décor on the base layer, where the decorative layer comprises a printing ink, and the printing ink comprises an amino resin. On top of this printed decorative layer is applied a wear layer comprising non-amino thermosetting resin selected from the group consisting of phenol-formaldehyde resin, urea formaldehyde resin and mixtures thereof. The process concludes by bonding the decorative layer and the wear layer together in the laminate press under increased temperature and pressure whereby the presence of the amino resin in the ink increases the bonding more than can be achieved by the thermosetting resin alone.

All the claims in the application are rejected under the basic proposed combination of Hansson (U.S. Patent 6,565,919) in view of Sano (U.S. Publication 2002/0077384), and further in view of either on of Arledter (U.S. Patent 2,816,851) or Mott (U.S. Publication 2002/0007909).

Hansson is said by the Examiner to "broadly teach that the wear layer may comprise one or more sheets of alpha-cellulose impregnated with thermosetting resin or lacquer (citing

column 1, lines 64-67; column 2, lines 1-2)". What Hansson does not suggest is not only the thermosetting resin of the present invention i.e. phenol-formaldehyde, or urea-formaldehyde resins, but the use of a material to increase the bond strength beyond what these resins can provide.

To supplement these deficiencies the Examiner cites Arledter suggesting phenol-formaldehyde and Mott suggesting urea formaldehyde, both as alternative to melamine-formaldehyde of Hansson.

However, applicants have described, in the original disclosure, that the problem in the prior art is that printing ink itself sometimes causes problems with de-lamination i.e. the separation of the wear layer from the decorative layer because of the presence of the printing ink. Applicants have found that when the printing ink comprises an amino resin, the presence of the amino resin in the ink increases the bonding more than can be achieved by the claimed thermosetting resin alone.

The Examiner has cited Sano as teaching a printing ink comprising an amino alkyd co-condensation resin citing (paragraph [0048]).

Thus, the Examiner's conclusion is that it would have been obvious to combine the amino containing printing ink of Sano et.al. with the Hansson et.al. teachings (as modified by either of Arledter or Mott) in order to improve the bonding between the printed decorative layer and the wear layer.

However, such a proposed combination would not have lead to one ordinary skill in the art to expect an increase in bonding between the decorative layer and a wear layer, especially where the thermosetting resins of the decorative layer are non-amino based resins.

Sano's ink is not used in any lamination process, but rather he produces his ink composition to be used in recording methods, such as a ink jet recording, recording methods using writing utensils, such as pens, and other various printing methods (see paragraph [0029]).

Moreover, applicants disclosed that the presence of printing inks in the prior art are the source for the de-lamination between the decorative layer, printed with the printing ink, and the thermosetting resins which comprise the wear layer.

In response to this argument the Examiner merely alleges that "improved bonding will be inherently achieved when using the printing ink of Sano since Sano's inks contains amino resin". See the Examiner's argument in the first paragraph on page 6 of the Office Action of March 18, 2008, incorporated by reference into the final rejection as noted by the first paragraph on page 4 thereof.

However, the Examiner is confusing "inherency" in a rejection under 35 U.S.C. 102 with a rejection predicated upon obviousness under section 103. Although the Examiner has cited MPEP 2112, in the leading cases cited therein, *In re Naipier* 34 USPQ 2d 1782, 1784 (Fed. Cir. 1995) and *In re Grasselli*, 218 USPQ 769, 775 (Fed. Cir. 1983), neither of these cases involve the interactions of different chemical substances as in the present case. As the court said in *Kloster Speedsteel AB v. Crucible Inc.*, 230 USPQ 81, 88 (Fed. Cir. 1986) "inherency and obviousness are distinct concepts", citing *W.L. Gore & Associates v. Garlock*, 220 USPQ 303, 314 (Fed. Cir. 1983) citing *In re Sporman*, 150 USPQ 449, 452 (1966) cert. denied, 105 S.Ct. 172 (1984).

In the claimed invention it is the presence of an amino resin in the printing ink in which enhances bonding to a non-amino containing wear layer is achieved. Nothing in the proposed combination teaches that it would have been predictable to have employed the specific printing ink of Sano, and expect to achieve an enhanced bonding of the decorative layer upon which the printing ink is placed with an overlying wear layer, containing non-amino thermosetting resins.

In the case of *In re Naipier*, a single reference was found to inherently contain all the teachings necessary to establish a case of obviousness under 103. In that case the application claim teaches reduction of a turbine engine exhaust noise by directing a stream of relatively cold air through the exhaust path of an engine. The reference taught a nozzle for reducing turbine engine noise from aircraft during takeoff in which the nozzle consisted

of the air inlets which are connected to a central tube, such that during takeoff outside air is drawn into the central tube, via air inlets, when it is mixed with the exhaust gas. According to the reference, the mix of the outside air with the exhaust gas produced a significant noise reduction. Based on such teachings, the court found that the reference inherently achieved the claimed result. However, in the instant case, there is no teachings (other than that of applicant's own specification), that the use of amino resin with specific non-amino thermosetting resins would increase the bond strength between a decorative paper upon which the amino ink is printed, and an overlying wear layer in which the thermosetting resin is present. Applicants have previously pointed out that the presence of ink, *per se*, have weakened bond strength between decorative papers and overlying wear layers. Thus, the teachings of using one specific type of printing ink, containing an amino resin, would overcome such previously known defects, would not have been obvious to the worker skilled in the art because such workers were not aware of, nor would it have been obvious to them of the "inherent" properties of a specific ink (containing an amino resin) when now used in a different environment, i.e., interacting with thermosetting non-amino resins. The "inherency" did not appear until applicants disclosed that this specific combination produced this unexpected property. There is no teachings in any of the references and, to the contrary the general knowledge held by those skilled in the art, would be that the presence of an ink would deleteriously affect the bonding between the decorative paper (upon which the ink was printed) and a wear layer in contact therewith. There was no expectation of success by substituting other printing inks for those printing inks known to deleteriously affect the bonding between the decorative paper (containing the printing ink) an overlying wear layer. Thus, unlike *In re Naipier*, there is no disclosure in the cited art that would have made the combination obvious to one having skill in the art, especially since one did not "know" about these supposed "inherent" properties of the Sano reference. The case of *In re Grasselli* is even further removed from the present invention of the Naipier teachings. *In Grasselli*, there was a known relationship of lithium, cesium, rubidium and francium, to sodium and potassium as group IA elements. When used as components of a catalyst, however, although entertaining the concept of "inherency"

normally the basis for rejection under 35 U.S.C. 102, the board adopted inherency for purposes of 35 U.S.C. 103. However, the Federal Circuit stated that "*Grasselli*, p.775 "it is fundamental that rejections under 35 U.S.C. section 103 must be based on evidence comprehended by the language of that section, (citations omitted)". Inherency would be established either if the portion of Example 4 [of the Japanese Patent Reference] excerpted above produces the four-component catalyst;

Example 4 catalyst is converted to the four-component catalyst when it is subjected to temperatures of propylene oxide production described in other portions of example 4.

The court stated that the "issue of inherency is a question of fact". But the court went on to reverse the rejections because there was no evidence to support the "issue of inherency" as fact.

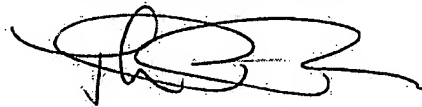
Here, the Sano publication is completely devoid of any teachings that an amino-containing ink would have higher bonding strength to non-amino thermosetting resins than other printing inks and indeed, there are no teachings whatsoever of its use for enhanced bonding to any other layer. The purpose of the ink composition of Sano (as described in the abstract) is to produce a composition for ink jet recording which possesses excellent printing stability, ejection stability, storage stability, and can yield good images, especially images having excellent color reproduction. Bonding strength to other thermosetting materials is simply not a concern with Sano et. al.

The Office apparently attempts to shift the burden to applicants to prove, as in the case of product by process claims, or other claimed products, that the claimed product is not "inherently" possessed of the claimed properties. However, it is here not merely the existence of "inherent" properties in the amino resin but rather the interaction of the amino resins with the thermosetting non-amino resins of the wear layer which produce the higher bonding strengths. Thus, like the interaction of the different components in a catalyst for the purpose of polymerization, there is no expectation of success merely because there may be some common property with other printing inks. To the contrary, it would be the expectations of those skilled in the art that the presence of the printing ink is the reason

why de-lamination occurs, and not the expectations that printing ink containing an amino resin could overcome the de-lamination problem.

Thus, for all the foregoing reasons, applicants respectfully submit that the Examiner cannot possibly prevail in an obviousness rejection based upon the proposed combination of references. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 14-1437, under Order No. 8688.046.US0000.

Respectfully submitted,



Thomas P. Pavelko

Registration No. 31,689

TPP/rnt

NOVAK DRUCE & QUIGG LLP

1300 Eye Street, NW

1000 West Tower

Washington, D.C. 20005

Telephone: (202) 659-0100

Facsimile: (202) 659-0105

Date: March 20, 2009